Buddy Garcia, *Chairman*Larry R. Soward, *Commissioner*Bryan W. Shaw, Ph.D., *Commissioner*Glenn Shankle, *Executive Director*



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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 6, 2008

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OWC WRIGHT

Mr. Miguel Flores
Director
Water Quality Protection Division
United States Environmental Protection Agency
Region 6
1445 Ross Avenue 6WQ
Dallas, Texas 75202-2733

Re:

UIC Program Revision to Establish an Aquifer Exemption

Woodbine Formation, Navarro County

Dear Mr. Flores:

On August 18, 2004, the Executive Director of the Texas Commission on Environmental Quality issued permit number WDW394 that authorizes Corsicana Technologies, Inc. (CTI) to inject nonhazardous industrial waste waters into the lowermost sand of the Woodbine Formation. The permitted injection zone is from 2,920 to 3,000 feet in the subsurface (log depth). On February 8, 2006, water samples taken from the well's injection zone determined that it was an underground source of drinking water (USDW). Today, WDW394 remains idle.

In accordance with 40 CFR §§144.7, 145.32 and 146.4, the Texas Commission on Environmental Quality (TCEQ) requests the Environmental Protection Agency's (EPA's) concurrence in exempting the injection zone of WDW394 from classification and regulation as a USDW through a program revision to the Texas Underground Injection Control Program. The area to be exempted is the vertical section of the injection zone from 2,920 to 3,000 feet (Attachment 1) over an area of approximately 1800 acres as outlined by a 5,000 foot radius from the wellbore (Attachment 2).

On June 1, 2006, CTI submitted to the TCEQ the "Aquifer Exemption Request for Class I Injection Well WDW-394" prepared by consultant Cook-Joyce, Inc. In September 2006, this document was updated, and copies were forwarded to TCEQ and to Mr. Jose Torres (EPA) for review.

The TCEQ commissioners approved the aquifer exemption under 30 TAC §331.13 on February 19, 2008 (Attachment 3).

The total dissolved solids from waters in the well's injection zone ranged from 8,390 to 8,730 mg/l. EPA's "Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs. GWPB Guidance #34" would make this request a non-substantial program revision.

Mr. Miguel Flores Page 2 May 6, 2008

Should you have any questions or need additional information, please contact Mr. Fred Duffy at (512) 239-6891 or send correspondence to him at mail code MC130.

Sincerely,

Glenn Shankle, Executive Director

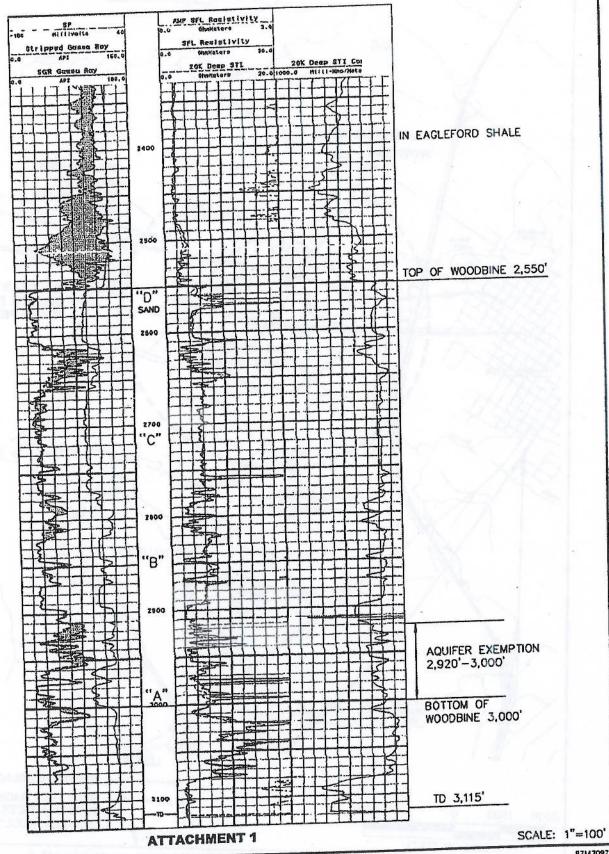
Texas Commission on Environmental Quality

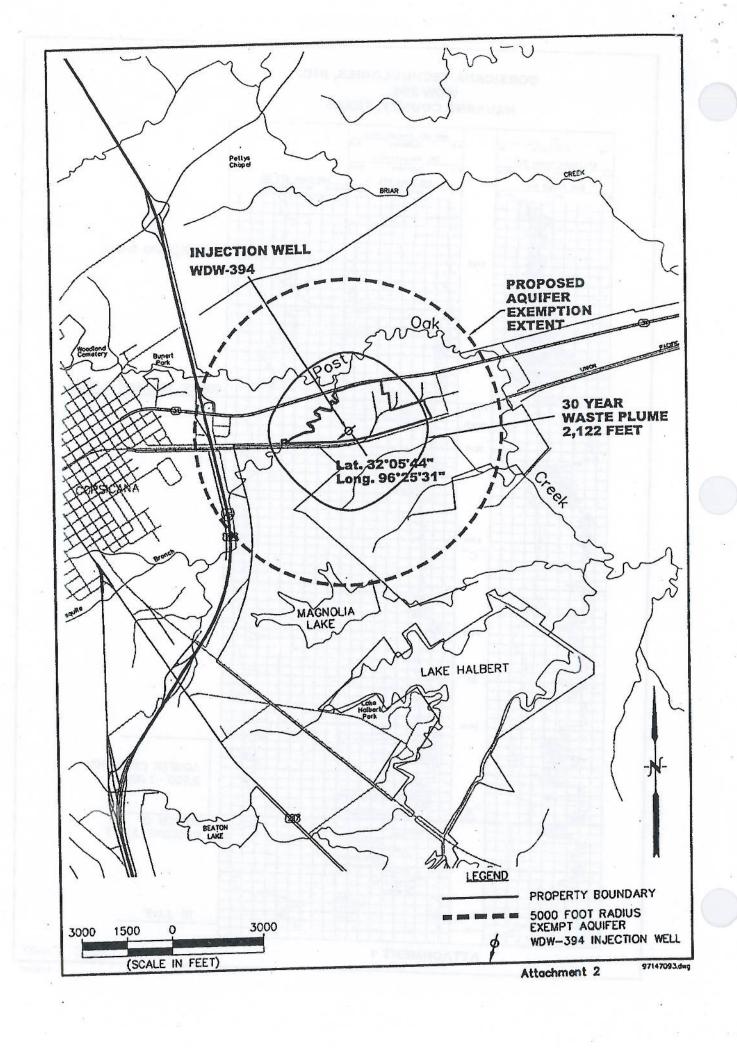
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Enclosures

cc: Mr. Jose Torres, EPA Region 6, 6WQ-S

CORSICANA TECHNOLOGIES, INC. **WDW 394** NAVARRO COUNTY, TEXAS





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



TCEQ DOCKET NO. 2007-1738-UIC

APPLICATION BY CORSICANA TECHNOLOGIES, INC. FOR AN AQUIFER EXEMPTION 0000

BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AQUIFER EXEMPTION ORDER

The Texas Commission on Environmental Quality (TCEQ) finds that:

- On June 1, 2006, Corsicana Technologies, Inc (CTI) submitted an application to request designation of an exempted aquifer.
- 2. CTI requests designation of a portion of the Woodbine Formation from a depth of 2,920 to 3,000 feet as seen in the electric log of Class I injection well WDW394. The exemption extends a 5,000 foot radius from the WDW394 wellbore, covering approximately 1,800 acres in Navarro County. A map depicting the extent of the exempted aquifer is attached.
- 3. The groundwater in the portion of the Woodbine Formation described in Finding #2 contains 8,500 mg/l total dissolved solids (TDS). Because the groundwater TDS concentration is less than 10,000 mg/l, according to 30 Tex. ADMIN. Code §§ 331.2 and 331.13, this portion of the Woodbine Formation is considered an underground source of drinking water unless it is designated an exempted aquifer.
- 4. CTI is a chemical manufacturing facility which produces primary, tertiary and quaternary amines. These amines are used in a variety of industrial applications, namely, mining, road building, lubrication, and fuel additives. CTI requests the designation of the exempted aquifer in conjunction with the use of an injection well permitted under TCEQ Permit No. WDW394 for injection of nonhazardous ammonia waste waters containing salts, polysulfides, amines, and alcohols. The Class I injection well is located at CTI's facility on the south side of Texas Highway 31 East, and approximately 4,000 feet east of Interstate 45 within the city of Corsicana in Navarro County. CTI cannot inject into the formation without the aquifer exemption.
- An exempted aquifer is an aquifer or a portion of an aquifer which meets the criteria for fresh
 water but has been designated an exempted aquifer by the commission after notice and
 opportunity for hearing.
- 6. An aquifer or portion of an aquifer may be designated as an exempted aquifer if the following criteria are met:
 - (1) It does not currently serve as a source of drinking water for human consumption; and
 - (2) Until exempt status is removed according to 30 TAC §331.13(f), it will not in the

future serve as a source for human consumption because:

- (A) It is mineral, hydrocarbon or geothermal energy bearing with production capability;
- (B) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technically impractical;
- (C) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or,
- (D) It is located above a Class III well mining area subject to subsidence or catastrophic collapse.
- 7. CTI has demonstrated that the portion of the Woodbine Formation described in Finding #2 is not currently, nor has ever been, a source of drinking water for human consumption within a radius of 15 miles from the CTI facility.
- 8. CTI has demonstrated with water samples and electric logs that the portion of the Woodbine Formation described in Finding #2 will not serve in the future as a source of drinking water for human consumption because it is contaminated with hydrocarbons and is a source of geothermal energy.
- 9. CTI has demonstrated that the portion of the Woodbine Formation described in Findings #2 is situated at a depth (2,900 feet) and has a thickness (30 feet) which makes recovery of water for drinking water purposes economically or technically impractical.
- 10. Notice of the aquifer exemption was issued on September 6, 2007, published in *Corsicana Daily Sun*, and mailed to the same recipients required for notice of an injection well permit application.
- 11. The notice described the process for submitting comments and requesting a hearing on the aquifer exemption.
- 12. A public meeting on the aquifer exemption was held in Corsicana, Texas, City Annex West Room on Thursday, June 21, 2007 from 7:00 8:00 p.m. Notice of the public meeting was published in Corsicana Daily Sun on May 31, June 7, and June 14, 2007.
- 13. The Executive Director of the Texas Commission on Environmental Quality provided a response to all timely public comments on the application.

Now, therefore, be it ordered by the Texas Commission on Environmental Quality that:

- 1. The portion of the Woodbine Formation described in Finding #2 be designated as an exempted aquifer under 30 TAC § 331.13(c);
- 2. The Executive Director of the Texas Commission on Environmental Quality submit a program revision to the United States Environmental Protection Agency (EPA) under 40 CFR §§ 144.7, 146.4, and 145.32 to reflect this aquifer exemption designation for the Underground Injection Control program for the State of Texas; and
- No designation of an exempted aquifer shall be final until approved by the EPA as part of the delegated Underground Injection Control Program.

Issue Date: FEB 1 9 2008

Texas Commission on Environmental Quality

Buddy Garcia, Chairman

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